Electronic VTE Prevention at Blacktown Hospital

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Background to problem
All patients should be assessed and managed for risk of Venous Thromboembolism (VTE) within 24 hours of admission. Internationally, the use of the electronic medical record (eMR) to prompt VTE risk assessment and provide decision support for managing VTE risk has been effective in reducing rates of hospital-associated VTE.

In recognising this, as part of the VTE Prevention Program strategy, the NSW Clinical Excellence Commission (CEC) in collaboration with eHealth NSW developed an electronic VTE risk assessment tool in the eMR based on a paper version. The tool has been piloted at Blacktown Hospital since June 2015 although the tool’s usage to date has been minimal. The purpose of this project was to improve the usage of the electronic VTE risk assessment tool across general surgery and respiratory teams.

Preparation
• General awareness raising among respiratory and general surgery
• Engaged each department head who supported the project
• Presented at respiratory department teaching session
• Head of General Surgery raised awareness at teaching sessions
• Presented to the Quality Council

PDSA Cycle – Plan & Do
ShADOWING OF ONE GENERAL SURGERY AND ONE RESPIRATORY TEAM FOR 2 DAYS EACH TO:
• IDENTIFY IMPROVEMENT OPPORTUNITIES
• COLLABORATION WITH TEAM FOR 2 DAYS EACH TO:
  • APPRAISAL OF UNIT STAFF TRAINING NEEDS
  • MODERNISATION OF工具 WIZARD TO IMPROVE VTE RISK ASSESSMENT
  • SENSE-DATA ERRORS AND ASSESS VTE RISK ASSESSMENT COMPLETION

PDSA Cycle – Study & Act
• MADE ADJUSTMENTS TO PROCESS MAP
• BETTER UNDERSTANDING OF WHERE IN THE WORKFLOW THE TOOL SHOULD BE COMPLETED FOR E. G. NO COMPUTER IN ANAESTHETIC BAY TO COMPLETE VTE RISK ASSESSMENT
• WARD ROUNDS WERE TOO QUICK TO COMPLETE THE RISK ASSESSMENT
• RECOGNISED THAT THE TEAM’S ADMITTING DOCTOR WOULD LIKELY BE THE BEST PERSON TO COMPLETE THE TOOL DURING THE ADMISSION PROCESS AND IF THE PATIENT WAS ADMITTED AFTER HOURS, THE TEAM SHOULD ASSESS THE PATIENT THE FOLLOWING DAY ON THE WARD
• THIS CHANGE MANAGER WAS SPREAD TO OTHER TEAMS VIA PEER TO PEER TEACHING

Overall Outcome of Project
There was some improvement in the tool’s usage, however the main outcome was an improved understanding of:
• Training requirements
• How the tool should be implemented
• The tool’s integration within workflow, and workflow variations and complexities (e.g. during vs after hours admissions)
• Barriers to usage
• Impact of medical rotations
• Culture around VTE risk assessment, particularly the roles of consultants, registrars and JMOs in influencing change
• Whose role/responsibility it is to complete the assessment
• Perceived utility of the tool
• How the tool’s usability could be improved

Next Steps
Lessons learnt will inform the further roll-out of the tool both locally and at state level. Next steps will involve:
1. Making enhancements to the tool based on user feedback
2. Releasing the tool for state-wide implementation
3. Exploring eMR functionalities to improve the tool’s visibility and accessibility within the eMR
4. Ongoing review and enhancement of the tool in consultation with users from across the state
5. Linking the tool to electronic prescribing

Aim statement
By the 30th of November 2016, 100% of eligible patients admitted under respiratory and general surgery at Blacktown Hospital have a VTE risk assessment completed using the electronic VTE risk assessment tool in the eMR within 24 hours of admission.

Team members
Sponsor(s) (Guidance Team):
Dr Helen Crowther, Clinical Haematologist, Westmead and Blacktown Hospitals
Ms Nina Muscillo, Senior Manager, Medication Safety

Project Team
Leader – Selvana Awad, CEC Project Officer
QI Advisor – Catriona Middleton-Rennie, Clinical Quality Programs Manager
Representation from – Medical, Nursing, Pharmacy, Clinical Governance and Quality

Results
Figure 1. Control chart showing the rate of patients admitted under General Surgery with an electronic VTE risk assessment completed within 24 hours of admission

Figure 2. Control chart showing the rate of patients admitted under Respiratory with an electronic VTE risk assessment completed within 24 hours of admission

Driver Diagram